



2018 Hazardous Waste Generator Workshop

Advanced Course



Disclaimer

This will not be a substitute for your training requirements.

Job specific training is required to meet the requirements under RCRA.

Topics For This Afternoon

- E-Manifest
- Hazardous Waste Generator Improvements Rule
- Used Oil
- Antifreeze
- Aerosol Cans
- E-Waste
- Breakdown of the Listed Hazardous Wastes
- Solvent-Contaminated Wipes Rule
- Case Study



e-Manifest

e-Manifest is here!

Hazardous Waste Electronic Manifest Establishment Act was signed October 05, 2012.

User Fee Rule went into effect December 20, 2017.

System is accessed through EPA's RCRAInfo database.

More information can be found at www.epa.gov/e-manifest.



e-Manifest

Lots of background and specific system and logistical information available for you to read. For this workshop, we will focus on the practical aspects of this system and what you need to know.

FAQs for many common questions or issues can be found on EPA's e-manifest webpage.

<https://www.epa.gov/e-manifest>

e-Manifest listerv and developer listserv available.

e-Manifest

What is RCRAInfo?

- Online database with information for all facilities with an EPA ID number.
 - Facility name, address, Biennial Reports, etc.
 - Available to you to view your own information.
 - <https://rcrainfo.epa.gov/rcrainfoprod>

What is e-manifest?

- e-Manifest is an electronic module for the generation, submission, and storage of hazardous waste manifests.
 - In other words, a database.

e-Manifest

- Benefits
 - Saves on natural resources
 - One year's accumulation of paper manifests nationwide would stack to the height of the Empire State Building.
 - Convenience of having an electronic system to track, correct, and retain records of shipments.
 - Replaces hardcopy recordkeeping regulatory requirements if facility opts in.
 - Not historical; only applies to manifests shipped on or after June 30, 2018.

e-Manifest

- All manifests must be submitted to EPA using one of the available options.
- Substitutes state manifest submission requirements.
- If used by 100% of industry, it will reduce the amount of paper copies that will inevitably be disposed/recycled (EPA's goal).

e-Manifest

- Who is required to comply?
 - Receiving facilities
- What is a receiving facility?
 - Any facility which receives waste from another source and terminates the manifest. For example:
 - Treatment, Storage, Disposal Facility (TSDF)
 - Publicly Owned Treatment Works (POTW)

e-Manifest

- Which manifests are required to be submitted?
 - All wastes shipped on a hazardous waste manifest, including:
 - State-only wastes
 - PCBs
 - Non-hazardous waste
 - Imports
 - Exports are excluded from this requirement.
 - Not historical. Only applies to manifests shipped June 30, 2018 and beyond.

e-Manifest

- Generators, transporters, and brokers are not required to register, though they may do so if they want to use the system.
- DOT still requires a paper copy of every manifest while in transit for now.
 - EPA is working with DOT to change requirements.

e-Manifest

- While the submission of manifests to EPA is mandatory, the use of the system is optional.
 - Paper manifests will still be accepted.
 - New 5-copy manifest is rolling out, but the current 6-copy manifest is still acceptable.
- Different methods for submitting manifests are available to suit current needs.
 - In 2021, paper submissions to EPA will not be available. Generators may still start a manifest with a paper copy.

e-Manifest

- Receiving facilities must:
 - Submit all received manifests to EPA within 30 days from the date of receipt.
 - Mail in hard copies (most expensive)
 - Scanned image upload
 - Data plus image upload
 - Submit electronically (least expensive)
 - Hybrid option exists where a manifest starts as a paper copy and the transporter or receiving facility converts it to electronic. Counts as electronic submission.

e-Manifest

- Generators and associated transporters and receiving facilities can view manifests right away.
- Federal, State, etc. agencies will also be able to view manifests soon after they are entered into the system.
- Public will be able to view manifests 90 days after manifests are received.
 - Manifests cannot be considered confidential business information.
 - Department of Homeland Security is restricting the view of manifest information containing certain chemicals of interests.

e-Manifest

- To submit electronically, or to view, prepare, and/or sign electronically, you must register in EPA's RCRAInfo V6 system.
 - <https://rcrainfo.epa.gov/rcrainfoprod>
- Once registered, add your facility/facilities to your profile.
 - Can request all facilities from same state at same time.
 - Facilities in different states must be separate requests.
- Request permissions appropriate to your level of use.

e-Manifest

- Four layers of permissions available:
 - Viewer – can view all manifests created after midnight on June 30, 2018.
 - Preparer – can view and create manifests.
 - Certifier – can view, create, and sign manifests
 - Site Manager – all of the above, plus approve additional roles at your facility.
Recommend two site managers for each facility.
- Transporters and receiving facilities may start manifests for generators.

e-Manifest

- To use the electronic system, you should communicate with your transporter and destination facility to ensure everyone is fully aware of expectations and logistics.
- Even if you don't use the system, you should still have this conversation.
 - Most importantly, to understand any new costs.
- Fees were set to cover operation and maintenance costs of the system.

e-Manifest

- Final fees:
 - Paper submission - \$15
 - Scanned image upload - \$10
 - Data plus image upload - \$6.50
 - Electronic and Hybrid - \$5
- These are fees receiving facilities will be responsible for per manifest. EPA is not directing these fees at generators or transporters.
- Fees are paid through e-manifest itself.

[My Sites](#) / [Site Details](#)

CHICHI AND CO

789 WAYWARD SON - TOPEKA

KSC000000123

[Site Details](#)[myRCRAid](#)[Biennial Report](#)[e-Manifest](#)

General Overview

Federal Generator Status

Large Quantity Generator

State Generator Status

Large Quantity Generator

Is Site Active

Yes

Date Last Updated

08/02/2017

Site Mailing Address

789 WAYWARD SON
TOPEKA, KS 66612

Site Contact

JOE SCHMO
789 WAYWARD SON
TOPEKA, KS 66612

Map



My Sites / KSC000000123 / e-Manifest Dashboard

CHICHI AND CO

789 WAYWARD SON - TOPEKA

KSC000000123

[Site Details](#)

[myRCRAid](#)

[Biennial Report](#)

[e-Manifest](#)

Create New Manifest

In Progress

Show 10 entries

Enter Manifest Tracking Number(s)



Manifest ID#	TSD ID	TSD Name	Last Updated Date	Status	Actions
--------------	--------	----------	-------------------	--------	---------

No manifests are currently in progress.

Showing 0 to 0 of 0 entries

Previous

Next

Received

Show 10 entries

Enter Manifest Tracking Number(s)



Manifest ID#	TSD ID	TSD Name	Shipped Date	Received Date	Status	Actions
--------------	--------	----------	--------------	---------------	--------	---------

No manifests have been received.

Showing 0 to 0 of 0 entries

Previous

Next

Received

 Show entries



Manifest ID#	TSDF ID	TSDF Name	Shipped Date	Received Date	Status	Actions
--------------	---------	-----------	--------------	---------------	--------	---------

No manifests have been received.

Showing 0 to 0 of 0 entries

[Previous](#)
[Next](#)

Paper Manifests (Image-Only)

 Show entries



Manifest ID#	Status	Last Updated Date	Actions
--------------	--------	-------------------	---------

No image manifests have been submitted.

Showing 0 to 0 of 0 entries

[Previous](#)
[Next](#)
[Back to My Sites](#)

OMB Control Number: OMB No. 2050-0039

[PRA Statement](#) | [Privacy Act Statement](#)

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DRAFT



PENDING



SCHEDULED



IN TRANSIT



RECEIVED

General Information



Manifest Tracking Number

UNASSIGNED

Manifest Type

NOT SELECTED

Import

☐ No

Select a status for this manifest *

- ☒ Draft - Visible only to users registered for this site
- ☐ Pending - Shared with users registered for the Generator, Transporters and Designated Facility selected below

1-5. Generator Information

EPA ID Number

KSC000000123

Name *

CHICHI AND CO

Mailing Address

789 WAYWARD SON,
TOPEKA, KS 66612

Site Address

789 WAYWARD SON,
TOPEKA, KS 66612

Emergency Response Phone

Extension

Contact Phone

785-224-0000

Extension

Contact Email

Can e-Sign?

Yes

6-7. Transporter Information

[Add Transporter](#)

8. Designated Facility Information

EPA ID - Name, City

9-13. Waste Information

[Add Waste Line](#)

14. Special Handling Instructions and Additional Information

Special Handling Instructions for this Manifest**Reference Information for this Manifest**

Optional for internal tracking. e.g. Customer # or Purchase Order #

Add Transporter To Manifest

Select Transporter *

VATEST000001 - TEST TRANSPORTER 1 OF VA, ARLINGTON

Transporter Name

TEST TRANSPORTER 1 OF VA

Can e-Sign?

Yes

Address Line 1

2777 SOUTH CRYSTAL DRIVE

Address Line 2

ZIP

22202

City, Town or Village

ARLINGTON

State

VIRGINIA

Contact Name

SCOTT CHRISTIAN

Contact Phone

703-308-0023

Contact Email

Save & Return

Cancel

14. Special Handling Instructions and Additional Information

Special Handling Instructions for this Manifest

Reference Information for this Manifest

Optional for internal tracking. e.g. Customer # or Purchase Order #

#	ID	Name	Can e-Sign?	Action
1	VATEST000001	TEST TRANSPORTER 1 OF VA	Yes	✕

[Add Transporter](#)

8. Designated Facility Information

EPA ID - Name, City

 VATEST000001 - TEST TRANSPORTER 1 OF VA, ARLINGTON
 


EPA ID Number

VATEST000001

Name

TEST TRANSPORTER 1 OF VA

Site Address

 2777 SOUTH CRYSTAL DRIVE,
ARLINGTON, VA 22202

Contact Phone

703-308-0023

Extension

Can e-Sign?

Yes

9-13. Waste Information

[Add Waste Line](#)

javascript:void(0)

Add Waste Line

9. Hazardous Material and U.S. DOT Description

9a. Is this waste a DOT
Hazardous Material?

Yes

Is this an EPA Hazardous
Waste?

Yes

Does this waste contain
PCBs? Refer to 40 CFR
§761.207

No

9b. U.S. DOT Description

☒ Enter U.S. DOT Description ☐ Build U.S. DOT Description

U.S. DOT Description *

ID Number *

Select ID Number

10-12. Containers and Quantity

Container Information

Number

Type

Select Type

Quantity Information

Total Quantity

Unit Wt./Vol.

Select Unit

13. Hazardous Waste Codes

Federal Waste Codes

None selected ▼

Clear All

Selected

KANSAS Waste Codes

None selected ▼

Clear All

Selected

VIRGINIA Waste Codes

None selected ▼

Clear All

Selected

14. Special Handling Instructions and Additional Information

Special Handling Instructions for this Waste

Reference Information for this Waste

Optional for internal tracking. e.g. Container Size or Profile #

Add Reference Information

Brian 

14. Special Handling Instructions and Additional Information

Special Handling Instructions for this Waste

Reference Information for this Waste

Optional for internal tracking. e.g. Container Size or Profile #

[Add Reference Information](#)

19. Hazardous Waste Report Management Method Codes

Management Method Code

H061-FUEL BLENDING

Biennial Report Information

Provide BR Information?

☐ No

[Save & Return](#)





[Save & Add New](#)

[Cancel](#)

Yes

9-13. Waste Information

Waste Characteristics (Total lines: 1)

	Line Number	HM	U.S. DOT Description	Containers	Type	Total Quantity	Units	Waste Codes	Management Method Code	Action
	1	X	Flammable Liquids	1	DM	350	P	D001	H061	 

[Add Waste Line](#)

14. Special Handling Instructions and Additional Information

Special Handling Instructions for this Manifest

Reference Information for this Manifest

Optional for internal tracking. e.g. Customer # or Purchase Order #

[Add Reference Information](#)

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CHICHI AND CO

789 WAYWARD SON - TOPEKA

KSC000000123

Site Details

myRCRAid

Biennial Report

e-Manifest

Create New Manifest

In Progress

Show 10 entries

Enter Manifest Tracking Number(s)



Manifest ID#	TSDf ID	TSDf Name	Last Updated Date	Status	Actions
UNASSIGNED	VATEST000001	TEST TRANSPORTER 1 OF VA	08/06/2018 09:21 PM	Draft	 

Showing 1 to 1 of 1 entries

Previous

1

Next

Received

Show 10 entries

Enter Manifest Tracking Number(s)



Manifest ID#	TSDf ID	TSDf Name	Shipped Date	Received Date	Status	Actions
--------------	---------	-----------	--------------	---------------	--------	---------

No manifests have been received.

[My Sites](#) /
 [KSC000000123](#) /
 [e-Manifest Dashboard](#) /
 e-Manifest



DRAFT



PENDING



SCHEDULED



IN TRANSIT



RECEIVED

General Information



Manifest Tracking Number

UNASSIGNED

Manifest Type

NOT SELECTED

Import

No

Select a status for this manifest *

- ☐ Draft - Visible only to users registered for this site
☒ Pending - Shared with users registered for the Generator, Transporters and Designated Facility selected below

1-5. Generator Information *

EPA ID Number

KSC000000123

Name *

CHICHI AND CO

Mailing Address *

789 WAYWARD SON,
TOPEKA, KS 66612

Site Address *

789 WAYWARD SON,
TOPEKA, KS 66612

Emergency Response Phone *

785-296-1600

Extension

Contact Phone *

785-224-0000

Extension

Contact Email

Can e-Sign?

Yes

✓ Manifest 100024641ELC has been set to Pending and saved. All Handlers on this manifest are now able to view it on their dashboard.
Return to Dashboard

[My Sites](#) / [KSC000000123](#) / [e-Manifest Dashboard](#) / e-Manifest


DRAFT


PENDING


SCHEDULED


IN TRANSIT


RECEIVED

General Information



Manifest Tracking Number

100024641ELC

Manifest Type

NOT SELECTED

Import

No

Select a status for this manifest *

- ☐ Draft - Visible only to users registered for this site
- ☒ Pending - Shared with users registered for the Generator, Transporters and Designated Facility selected below

1-5. Generator Information *

EPA ID Number

KSC000000123

Name *

CHICHI AND CO

Mailing Address *

789 WAYWARD SON,
TOPEKA, KS 66612

Site Address *

789 WAYWARD SON,
TOPEKA, KS 66612

Emergency Response Phone *

785-296-1600

Extension

Contact Phone *

785-224-0000

Extension

Contact Email

Can e-Sign?

Yes

Please print or type.

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator ID Number KSC000000123	2. Page 1 of 1	3. Emergency Response Phone 785-296-1600	4. Manifest Tracking Number 100024641ELC
5. Generator's Name and Mailing Address CHICHI AND CO 789 WAYWARD SON TOPEKA KS, 66612					
Generator's Site Address (if different than mailing address)					
Generator's Phone: 785-224-0000					
6. Transporter 1 Company Name TEST TRANSPORTER 1 OF VA				U.S. EPA ID Number VATEST000001	
7. Transporter 2 Company Name				U.S. EPA ID Number	
8. Designated Facility Name and Site Address TEST TRANSPORTER 1 OF VA 2777 SOUTH CRYSTAL DRIVE ARLINGTON VA, 22202				U.S. EPA ID Number VATEST000001	
Facility's Phone: 703-308-0023					
GENERATOR	9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))		10. Containers No.	11. Total Quantity
	<input type="checkbox"/>	1. Flammable Liquids		1	350
	<input type="checkbox"/>	2.			
	<input type="checkbox"/>	3.			
	<input type="checkbox"/>	4.			
12. Unit Vol./wt.					
13. Waste Codes D001					
14. Special Handling Instructions and Additional Information Line 1:					
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in at all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement (identified in 40 CFR 262.27 (a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.					
Generator's/Offeror's Printed Typed Name _____ Signature _____ Month _____ Day _____ Year _____					
TRANSPORTER INT'L	16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____				
	17. Transporter Acknowledgment of Receipt of Materials Transporter signature (for exports only): _____ Signature _____ Month _____ Day _____ Year _____				
	Transporter 1 Printed Typed Name _____ Signature _____ Month _____ Day _____ Year _____				
DESIGNATED FACILITY	18. Discrepancy 18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection				
	18b. Alternate Facility (or Generator) _____ Manifest Reference Number: _____ U.S. EPA ID Number _____				
	Facility's Phone: _____				
	18c. Signature of Alternate Facility (or Generator) _____ Month _____ Day _____ Year _____				
	19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems) 1. H061 2. 3. 4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in item 18a Printed Typed Name _____ Signature _____ Month _____ Day _____ Year _____					

EPA Form 8700-22 (Rev. 12-17) Previous editions are obsolete.

DESIGNATED FACILITY TO EPA's e-MANIFEST SYSTEM



e-Manifest

EPA

General Info– www.epa.gov/e-manifest

Kansas Specific – www.epa.gov/ks/e-manifest

KDHE

www.kdheks.gov/waste/e-manifest.htm



Used Oil Requirements

Used oil is refined or synthetic oil that has been used and as a result, is contaminated with physical or chemical impurities.

- Is not considered a hazardous waste as long as it is recycled.
- Some management requirements apply.
- Does not count toward your monthly HW generation.

Used Oil Requirements

If used oil is mixed with a hazardous waste, the entire mixture must be managed as a hazardous waste if:

Hazardous waste was listed:

- **Always**

Hazardous waste was characteristic:

- **Only if the resulting mixture exhibits any characteristic.**



Used Oil Requirements

Containers and Above-Ground Tanks must be:

- Marked with the words “Used Oil”
- Maintained in good condition



Transporting:

**55-gallons or
less:**

**Can self transport your own
used oil to an aggregation
point or collection center.**

**More than 55
gallons:**

**Must use a registered
transporter.**

A list of registered used oil transporters can be found at http://www.kdheks.gov/waste/hw/UO_list.pdf

Used Oil Requirements

Burning Used Oil in an on-site space heater:

- **UO was generated on site or by a sister facility**
- **Received from do-it-yourselfers**
- **On-spec from any source**

USED OIL FUEL SPECIFICATIONS

Constituent/Property Allowable Level

Arsenic 5 ppm maximum

Cadmium 2 ppm maximum

Chromium 10 ppm maximum

Lead 100 ppm maximum

Flash point 100 °F minimum

Total Halogen 4,000 ppm maximum

(If > 1,000 ppm halogens, then only on-spec if rebuttable presumption is met)

Used Oil Requirements

Burning Used Oil in an on-site space heater:

- **Space heater must:**
 - **Have a maximum capacity of 0.5 million Btu/hour**
 - **Allow combustion gases to vent to the ambient air**

Used Antifreeze

Recycling is the preferred method of handling; disposal is a last resort.

Disposal:

- **Must conduct a waste determination**
- **If hazardous, it must be managed accordingly**
- **If non-hazardous, it can be:**
 - **Solidified and disposed of in a permitted municipal solid waste landfill.**
 - **Disposed through sanitary sewer with written permission from local wastewater authority.**



Hazardous Waste Generator Improvements Rule

Went into effect May 31, 2017 at the federal level.

Authorized states are going through adoption and authorization process.

Kansas has not yet adopted these regulations, but we will.

Effects of These Changes

More stringent:

- Identifying hazards of wastes being accumulated & labeling
- Notification of closure
- Closure as a landfill for LQGs accumulating hazardous wastes in containers that cannot meet closure performance standards
- Biennial reporting for recyclers who don't store prior to recycling
- Quick reference guide for contingency plans

Less stringent:

- VSQG waste consolidation
- Episodic generation
- Waiver from 50-foot rule
- SQG re-notification

Equally stringent:

- Biennial reporting for whole year, not just months the generator was an LQG

Regulations

- Reorganization of the 40 CFRs to become more user-friendly

Provision	Existing Citation	New Citation
Generator Category Determination	261.5(c)-(e)	262.13
VSQG Provisions	261.5(a), (b), (f)-(g)	262.14
Satellite Accumulation Area Provisions	262.34(c)	262.15
SQG Provisions	262.34(d)-(f)	262.16
LQG Provisions	262.34(a), (b), (g)-(l), (m)	262.17

Regulations

Defined new terms in § 260.10, including:

- Acute and non-acute hazardous wastes
- VSQG, SQG (previously defined incorrectly), and LQG

Clarified the regulations in a new section § 262.13, including:

- Procedures for counting hazardous waste
- How to determine generator category when generating acute and non-acute hazardous waste in the same month
- How to determine generator category when mixing solid and hazardous waste

HW Determinations

Clarifications

- HW determinations must be accurate, not just conducted and recorded.
- Must be made at the POG and at any time during the course of management for waste potentially exhibiting a hazardous characteristic.

Improvements

- Explain more fully in § 262.11 how to evaluate wastes.
- Explain more fully how generators can use generator knowledge and tests.

Satellite Accumulation Areas

- Requires that hazardous wastes not be mixed or placed in a container with other hazardous wastes that are incompatible
- Allows containers to remain open temporarily under limited circumstances, when necessary for safe operations
- Provides maximum weight in addition to volume for acute hazardous waste limit
- Clarifies that “three days” means three consecutive calendar days
- Makes marking and labeling requirements consistent with central accumulation areas

Labeling of Containers

Current

- **“Hazardous Waste”**
- **Accumulation start date (storage only)**

New

- **“Hazardous Waste”**
- **Accumulation start date (storage only)**
- **Identify hazards (not identity)**
- **Applicable RCRA waste codes prior to shipping**

Emergency Preparedness/Planning

- Arrangements may be made with Local Emergency Planning Committees (LEPCs), if appropriate
- Scope of the contingency planning and emergency procedures applies only to areas where hazardous wastes are being accumulated (including points of generation and SAAs)
- LQGs have flexibility to eliminate unnecessary employee personal information in the contingency plan
- SQGs and LQGs may determine the most appropriate locations for emergency equipment
- SQGs have the option to use contractors to address releases (containment/cleanup)
- Large facilities with internal response capabilities may seek a waiver from entering into arrangements with local authorities (final rule specifies waiver procedure)

Contingency Plans

Current

- Attempt to make arrangements with Emergency Responders
- Document if responders decline to enter into arrangements

New

- Attempt to make arrangements with Emergency Responders
 - Document all attempts in facility operating record
- Quick Reference Guide
 - Information most critical for emergency responders
 - To be included when a new or updated plan is submitted

Quick Reference Guide

- Types/names of hazardous wastes and associated hazards
- Estimated maximum amounts of hazardous wastes
- Hazardous wastes requiring unique/special treatment
- Map showing where hazardous wastes are generated, accumulated and treated at the facility
- Map of facility and surroundings to identify routes of access and evacuation
- Location of water supply
- Identification of on-site notification systems
- Name of emergency coordinator(s) or listed staffed position(s) and 7-day/24-hour emergency telephone number(s)

50-Foot Rule Waiver

Current

- All containers holding ignitable and/or reactive waste must be located at least 50-feet from the property line.

New

- All containers holding ignitable and/or reactive waste must be located at least 50-feet from the property line.
- A waiver may be obtained from the fire marshal if the fire marshal believes sufficient precautions are in place.

Waste Consolidation

Consolidate waste at an LQG under the control of the same person

- Person – as defined under RCRA
- Control – means the power to direct policies at the facility

CESQGs and KSQGs

- Mark and label waste containers with “Hazardous Waste” and the hazards

LQG

- Notifies state on Notification of Regulated Waste Activity form and addendum that it is participating in this activity and identifies which CESQGs and KSQGs are participating.
- Maintain records for each shipment.
- Manages consolidated waste as LQG hazardous waste including ensuring final treatment or disposal is at a RCRA-designated facility (TSDF or recycler).
- Reports in Biennial Report

Episodic Events

New

- Generator can keep their existing category provided they comply with a set of requirements in 40 CFR § 262 Subpart L:
 - One calendar event per year (planned or unplanned) with ability to petition for a second event.
 - If first event is planned, the petition must be for an unplanned event or vice versa.
 - Notify KDHE at least 30 days prior to planned event.
 - Notify within 72 hours after an unplanned event.
 - Conclude the event within 60 days, including removing waste.

Episodic Events

New

- Generator can keep their existing category provided they comply with a set of requirements in 40 CFR §262 Subpart L:
 - All containers must be:
 - Labeled “Episodic Hazardous Waste”
 - Identify hazards of contents
 - Date episodic event began (and ended for tanks)
 - Maintain records including the date the episodic event began.

Episodic Events

Generators must:

- Obtain EPA ID number (VSQG)
- Use HW manifest and transporter to send episodic waste to RCRA-designated facility
- Manage waste such that possibility of accident or release is minimized
- Label containers
- Identify an emergency coordinator
- Maintain records associated with event for three years

Episodic Events

New Kansas Policy (2017):

- Kansas is allowing certain provisions of these new regulations until adoption.
 - VSQG Consolidation
 - 50-Foot Waiver
 - LEPC
 - Episodic Events



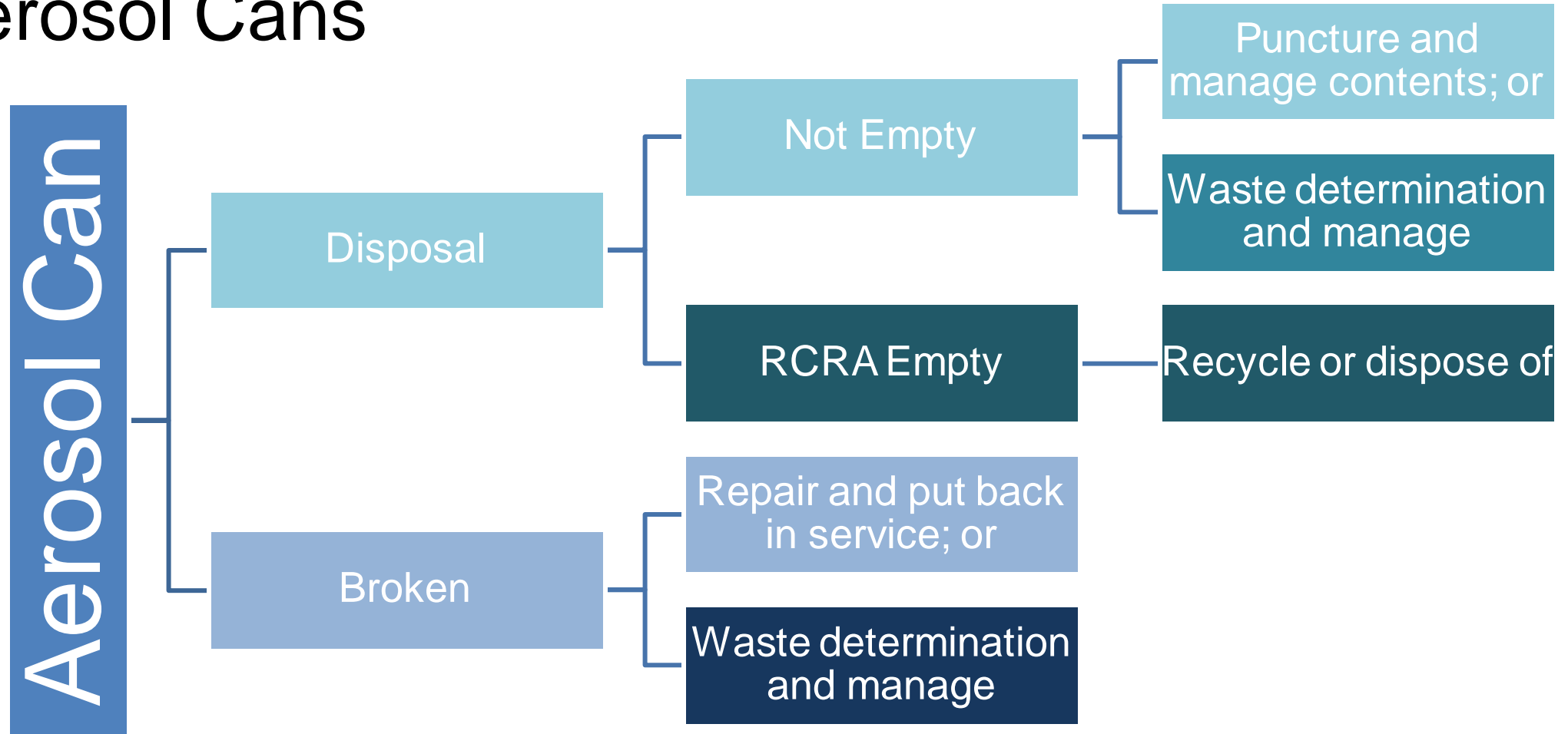
Aerosol Cans

KDHE considers empty aerosol cans (RCRA empty) to be non-hazardous waste unless they contained an acutely hazardous waste.

If the contents were acutely hazardous (P-listed), the can must be managed appropriately.

If the aerosol can is not empty, but the contents cannot be used due to a broken nozzle, a clog, etc., attempts can be made to repair the can.

Aerosol Cans



Aerosol Cans

In other words:

- If the aerosol can is RCRA empty and not P-Listed, it can be recycled or disposed of in the trash.
- If the can is not empty, but broken, it can be repaired and reused. If it can't be repaired, it must be managed in one of the two ways below.
- If the aerosol can is not empty:
 - a waste determination is made and it is managed appropriately, or
 - it can be punctured in a puncturing device, the contents appropriately managed, and the can recycled or disposed of in the trash.

Aerosol Cans

Satellite accumulation must be at or near the point of generation of the aerosol can.

- Must be where the can was originally generated.
 - E.g., paint booth
- If an attempt at repair will be made, the point of generation is where that attempt is conducted.
 - E.g., maintenance area
 - Can is still considered a product up until then.

Puncturing Aerosol Cans

This is an exempt form of hazardous waste treatment as long as the activity is conducted in a closed, self-contained unit.

- Must have a filter attached to the unit.

When punctured, the waste drained from the can is considered a new point of generation. Because of this, the container the waste drains into can be managed as a satellite accumulation container.

The empty containers can be recycled or disposed of unless the contents were P-listed.



Puncturing Aerosol Cans





2018 Hazardous Waste Generator Workshop

Electronic Waste

KDHE has not adopted the federal e-waste rules.

Currently, there is not a landfill ban in Kansas for electronic waste. However, we do encourage recycling whenever possible.

Listed Hazardous Wastes

Listed hazardous wastes are selected based on the risk posed to human health as follows:

- It exhibits a characteristic hazard;
- It is found to be fatal to humans in low doses, or meets an LD 50 criteria in rats based on route of exposure in the absence of human data; or,
- The waste is capable of posing a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed, or otherwise managed.

Listed Hazardous Wastes

Keep in mind!

- **All wastes must be evaluated for characteristics regardless of their listing status.**

F-Listed Hazardous Wastes

Spent Solvents

- **F001 Halogenated Degreasing Solvents (T)**
- **F002 Halogenated Solvents (T)**
- **F003 Non-Halogenated Solvents (I)**
- **F004 Non-Halogenated Solvents (T)**
- **F005 Non-Halogenated Solvents (I,T)**

F001 Listed Wastes

**Large Scale
Degreasing
Operations
(T)**

Tetrachloroethylene*

Trichloroethylene*

Methylene chloride*

1,1,1-trichloroethane*

Carbon tetrachloride

Chlorinated fluorocarbons

F002 Listed Wastes

Degreasing Operations (T)

Tetrachloroethylene*

1,1,2-trichloro-1,2,2-trifluoroethane

Trichloroethylene*

Ortho-dichlorobenzene

Methylene chloride*

Trichlorofluoromethane

1,1,1-trichloroethane*

1,1,2-trichloroethane

Chlorobenzene

F-Listed Hazardous Wastes

F001 and F002 spent solvents marked with * appear on both lists. The size of the operation defines which listing applies.

- **Trichloroethylene (TCE) used in a 1,000-gallon degreaser unit would carry the F001 listing.**
- **TCE used in a 5-gallon parts washer would carry the F002 listing.**

F003 Listed Wastes

**Non-
Halogenated
(I)**

Xylene

Methyl isobutyl ketone

Acetone

N-butyl alcohol

Ethyl acetate

Cyclohexanone

Ethyl benzene

Methanol

Ethyl ether

F-Listed Hazardous Wastes

The F003 waste code only applies if the waste is ignitable at the point of generation.

- **If the spent solvent on this list carries the D001 characteristic waste code at the point of generation, it would also carry the F003 waste code.**
- **If the spent solvent on this list does not carry the D001 characteristic waste code, the F003 waste code does not apply.**

F004 Listed Wastes

**Non-
Halogenate
d (T)**

Cresols and cresylic acid

Nitrobenzene

F005 Listed Wastes

**Non-
Halogenated
(I, T)**

Toluene

Pyridine

Methyl ethyl ketone

Benzene

Carbon disulfide

2-ethoxyethanol

Isobutanol

2-nitropropane

F-Listed Hazardous Wastes

Where do they apply?

- All spent solvent mixtures/blends containing, before use, a total of 10% or more by volume of any of the F001, F002, F004, and/or F005 spent solvents.
- Still bottoms from the recovery of these spent solvents.

F-Listed Hazardous Wastes

Examples

85% water
15% tetrachloroethylene (PCE)
(F001/F002)
Used for small scale degreasing

F002

95% Water
5% PCE (F001/F002)
Used for small scale degreasing

Not listed

75% xylene (F003)
15% toluene (F005)
10% water
Ignitable (D001)

F003, F005
Also D001

F-Listed Hazardous Wastes

Examples

85% isopropyl alcohol
8% chlorobenzene (F002)
7% methyl ethyl ketone
(F005)

F002, F005

More than 10%

92% isopropyl alcohol
2% chlorobenzene (F002)
6% methyl ethyl ketone
(F005)

Not listed

Less than 10%

75% xylene (F003)
25% toluene (F005)
Still bottoms from recycling
Not ignitable

F005

F-Listed Hazardous Wastes

Examples

Waste paint containing methyl ethyl ketone (MEK) used as a thinner during painting operations.

Not listed

May be characteristic

MEK used to clean paint equipment.

F005

Both of these waste streams are emptied into the same satellite accumulation container.

Entire mixture is F005

F-Listed Hazardous Wastes

Heavy Metals

- F006-F019

Dioxin Wastes

- F020-F023
- F026-F027

Chlorinated Aliphatic Hydrocarbons

- F024 and F025

Wood Preservation

- F032-F035

Petroleum Refining

- F037-F038

Multi-Source Leachates

- F039

K-Listed Hazardous Wastes

Manufacturing process wastes from specific sources.

- Wood Preservation
- Inorganic Pigments
- Organic/Inorganic Chemicals
- Pesticides
- Explosives
- Veterinary Pharmaceuticals
- Iron and Steel
- Primary Aluminum
- Secondary Lead
- Petroleum Refining
- Ink Formulation
- Coking

P- and U-Listed Hazardous Wastes

Commercial Chemical Products

- Discarded
- Off-Specification
- Residues (container, spill, etc.)

P-List

- Acutely Hazardous
- Regulated at 2.2 pounds

U-List

- Toxic (non-acute)

P- and U-Listed Hazardous Wastes

Must be the sole active ingredient

- **Two or more active ingredients (P- and/or U-Listed) prevents the listings from applying.**
- **NOTE - Additives or other ingredients that do not serve the primary function of the product do not count as an active ingredient.**

P- and U-Listed Hazardous Wastes

Examples

85% toluene (Active)
15% water

U220

75% toluene (Active)
15% water
10% additives to improve the
odor of the mixture

U220

50% toluene (Active)
35% xylene (Active)
15% water

Not listed

P- and U-Listed Hazardous Wastes

Reminder!

- **Even if a waste does not meet a listing definition, it may still carry a characteristic waste code.**

P- and U-Listed Hazardous Wastes

Keep in Mind!

- **The chemical names listed on these lists are common names and may have other industry specific names associated with them.**
- **The List of Lists can help confirm synonyms, CAS numbers, and in some cases, RCRA waste codes.**
- **<https://www.epa.gov/epcra/consolidated-list-lists>**

Solvent-Contaminated Wipes

Kansas has not yet adopted the federal rule.

KDHE Policy BWM 2013-P2 allows generators to follow this rule.

Technical Guidance Document HW-1995-G2 explains the rule.

Wipe can be a shop towel, rag, pad, or swab made of wood pulp, fabric, cotton, polyester blends, or other material.

Solvent-Contaminated Wipes

Applies to any wipe:

- **Listed on the F001 through F005 lists or corresponding P- or U- Lists.**
- **Exhibits the characteristic of ignitability.**
- **Sent for disposal or to be laundered (reusable wipes).**

Does not apply to wipes:

- **Listed for anything other than solvents.**
- **Contaminated with trichloroethylene (disposable only).**
- **Exhibits the characteristic of corrosivity, reactivity, or toxicity from any other contaminant.**

Solvent-Contaminated Wipes

Reusable wipes:

- Excluded from the definition of solid waste (do not require a waste determination).
- Do not count toward your generator status (monthly counting).

Disposable wipes:

- Excluded from the definition of a hazardous waste (require a waste determination).
- Do not count toward your generator status (monthly counting).
- Must go to an MSW landfill with a synthetic liner.

Solvent-Contaminated Wipes

Container Management:

- Non-leaking;
- Closed;
- Able to contain free liquids;
- Labeled with the words “Excluded Solvent-Contaminated Wipes”;
- Marked with the accumulation start date or alternative tracking method;
- Removed from the site within 180 days.

Solvent-Contaminated Wipes

Recordkeeping:

- Document name and address of all handlers (i.e., disposal, laundry, and dry cleaning facility) receiving wipes.
- Records or label to show wipes were on site 180 days or less.
- Description of how the “no free liquids” condition is met.
 - Includes all technologies, methods, sampling or knowledge used to ensure wipes sent to handlers do not contain free liquids.

Solvent Contaminated Wipes

A note on free liquids:

- **Free liquids generated at the generator's facility are the responsibility of the generator.**
 - **This includes proper management and waste counting.**
- **Free liquids generated at the handler's facility are the responsibility of the handler.**

Case Study

- KDHE is authorized by EPA for the RCRA program which includes enforcement.
- Authorized for administrative/civil actions and penalties.
- EPA retains authority for criminal investigation, action, and penalties in addition to civil actions.
- This case study is meant to show this interaction.
-



Case Study

- An individual purchased a box van loaded with urethane flooring materials, paints, and other chemicals.
- The van was towed to his residence. He later claimed dark fumes and an odor had begun to fill the van.

Case Study

- He contacted the sheriff who told him to take it back to the seller or contact EPA.
- Instead, the van was hauled to a rural property and he began unloading the containers onto the ground near a pond.
- Before he could finish, the contents caught fire which resulted in a large plume of dark smoke visible for up to five miles.
- County sheriff was dispatched to the location and called in the local fire department.

Case Study

- Emergency crews arrived on site and extinguished the fire. No one was present when they arrived.
- Video footage emerged later showing individuals entering site with gas can and leaving site shortly before fire was noticed.

Case Study

- KDHE received a call shortly thereafter informing us of an illegal dump site which had been burned.
- KDHE personnel arrived on site and observed a van and containers of varying size and contents both inside the van and on the ground.

Case Study

- The van was also observed to have been moved away from the pond and now on its side. The individual said he was attempting to salvage the engine with a bulldozer.
- Instructions were left to not disturb the scene any further without approval from KDHE.

Case Study

- KDHE met with seller who showed us the type of chemicals he still had in storage that would have been in the van, giving us an idea of what hazardous items may exist at the disposal area and if a reactive autoignition was possible.
- A few days later, the van was gone.

Case Study

- Video footage later showed the van had been transported off the property by the individuals. It was found at a salvage yard across state lines.
- At this point, KDHE turned over the investigation to EPA.
 - Appeared to be willful intent to hide/destroy evidence
 - Activity crossed state lines

Case Study

- EPA began investigating, beginning with sampling of residues left at the disposal area and containers on site.
- Eventually, materials were removed from the site.

Case Study

- EPA took criminal enforcement on individual for illegally transporting and disposing of hazardous waste. Still unclear if fire was intentionally set.
- Plead guilty to one count of unlawful disposal of hazardous waste and admitted to knowingly buying a vehicle loaded with hazardous waste.
- Sentenced to 18 months in prison. Cost of cleanup was more than \$19,000.

Available Resources

- KDHE wants to help all generators achieve compliance. Please call us with any questions at 785-296-1600.
- Small Business Environmental Assistance Program (SBEAP) operated by the Pollution Prevention Institute (PPI) at KSU 1-800-578-8898 (free anonymous assistance).

Waste Determination

“Kansas Waste Determination” App

Developed through a partnership between KDHE, BWM and SBEAP

Available on both Android and Apple app stores. Coming soon to Microsoft Store.

Will generate a sufficient waste determination document; however,

- Only as accurate as the information you provide.
- Will need to attach all supporting documentation.



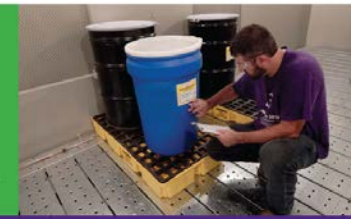


Kansas
Department of Health
and Environment

Facility name	
EPA I.D. #	
Generator category	

Tip:
If a waste needs to be tested to conduct or confirm a determination, generators must use a KDHE-certified lab. A list of certified labs may be found at kdheks.gov/envlab/disclaimer.html.

Note:
The "Kansas Waste Determination" app offers an electronic option for recording determinations. It is free, and available for both Apple and Android products.



Weekly/Monthly Inspection Log

Date (enter date a weekly or monthly inspection was conducted)					<p>Accumulating CESQG and KSQG are required to conduct monthly inspections of hazardous waste storage areas. SQG and LQG are required to conduct weekly inspections of hazardous waste storage areas.</p> <p>Please print full name of person who performed the weekly or monthly inspection.</p> <p>Week 1 inspected by _____</p> <p>Week 2 inspected by _____</p> <p>Week 3 inspected by _____</p> <p>Week 4 inspected by _____</p>
Time					
Each container clearly marked with the words "Hazardous Waste"	Y	N	Y	N	
Marked with accumulation start date	Y	N	Y	N	
Containers properly closed	Y	N	Y	N	
Containers in good condition	Y	N	Y	N	
Incompatible wastes segregated	Y	N	Y	N	
If anything needed to be fixed, explain here and list date it was fixed.					

FEBRUARY 2018

Sun	Mon	Tues	Wed	Thur	Fri	Sat
28	29	30	31	1	2	3
					Groundswell Day	
4	5	6	7	8	9	10
11	12	13	14	15	16	17
			Valentine's Day			
18	19	20	21	22	23	24
	President's Day					
25	26	27	28	1	2	3

Mark on the calendar—

- each day a hazardous waste storage inspection was conducted
- each day hazardous waste was shipped

Things to consider—

How much hazardous waste was generated this month?

How much hazardous waste is currently in storage?

What is the oldest accumulation start date in storage?

For additional assistance, call KDHE at 785-296-1600 or SBEAP at 800-578-8898.

Documenting Hazardous Waste Determinations

Most generators can use their "knowledge of process" and SDS, rather than testing when making a hazardous waste determination. These must be documented and the documentation should be maintained on-site for a minimum of three years from date you last shipped that particular waste off-site. A sample "waste determination" form can be found at the back of this calendar. Make copies of it, or use the new "Kansas Waste Determination" app available in the Play stores for Apple and Android, to document your waste determinations. The technical guidance document at kdehs.gov/waste/techguide/tw-2011-G1.pdf provides detailed instructions.

Tip:
Hazardous waste determinations should be made for each waste generated at your facility.

Description of training topics covered:

Date:

Time:

List of employees attending:



Contact Information

- BWM web site:

<http://www.kdheks.gov/waste>

- Ken Powell

785-296-1121

ken.powell@ks.gov

- Brian Burbeck

785-296-1613

brian.burbeck@ks.gov

Thank you/Questions



Our Mission: To protect and improve the health and environment of all Kansans.